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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,121	06/26/2003	Shigeo Suzuki	AW-C346	3661

7590 07/28/2004
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Alexandria, VA 22305

EXAMINER

LE, DAVID D

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/606,121	TSUZUKI ET AL.	
	Examiner	Art Unit	
	David D. Le	3681	<i>MLW</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>28 June 2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is the first Office action on the merits of Application No. 10/606,121, filed on 26 June 2003. Claims 1-15 are pending.

Documents

1. The following documents have been received and filed as part of the patent application:

- Declaration and Power of Attorney, received on 11/10/03
- Information Disclosure Statement, received on 07/28/03
- Foreign Priority Document, received 06/26/03

Claim Objections

2. Claim 7 is objected to because of the following informalities:

- The period "." at the end of claim 7 is missing.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claims 1-15:

- Claim 1, line 7 recites the limitation "the driving force". There is insufficient antecedent basis for this limitation in the claim.
- Claim 1, line 11 recites the limitation "the actual shift range". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1, 3, 4, 6, 10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 01/42687 A1.**

Note:

To facilitate a better understanding as well as greater accuracy in explaining the following claim rejections, the examiner will refer to the equivalent English version of the WO 01/42687 A1, U. S. Patent No. 6,499,371 to Tsuzuki et al.

Claims 1, 3, 4, 6, 10, and 12:

Tsuzuki (Figs. 1-4; column 8, line 35 – column 13, line 50) discloses a range switch device comprising:

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- A range selecting mechanism (25) for selecting a shift range;
- A drive mechanism (12) that is interlocked with and drives the range selecting mechanism;
- A range operating mechanism (see Fig. 1) for operating a changeover valve (2) with a driving force of the drive mechanism to change the shift range of an automatic transmission;
- A transmitting mechanism (30) for transmitting the driving force of the drive mechanism to the range operating mechanism;
- A first range detection section (23) that detects a shift range corresponding to an operating position of the transmitting mechanism;
- A second range detection section (21) that detects the actual shift range as changed by the range operating mechanism;
- A judging section (20) that judges whether or not the shift ranges detected by the first and second range detection sections are in mutual agreement;
- A failure judging section (this section is part of the shift motion controlling portion 20, which analyzes when element 23 and 21 are not in mutual agreement) that judges a failure of the first range detection section when the detected ranges are judged by the judging section as not in mutual agreements (column 12, line 30 – column 13, line 50);
- A preset fail-safe procedure (see column 12, line 30 – column 13, line 50);
and
- Inherently including a vehicle speed detecting sensor.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 2, 5, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/42687 A1 in view of U. S. Patent No. 5,092,198 to Morishige et al.**

Note:

To further facilitate a better understanding as well as greater accuracy in explaining the following claim rejections, the examiner will also refer to the equivalent English version of the WO 01/42687 A1, U. S. Patent No. 6,499,371 to Tsuzuki et al.

Claims 2, 5, and 11:

Tsuzuki discloses all elements and limitations as set forth above.

Regarding claims 2, 5, and 11, ***Tsuzuki*** does not explicitly disclose a hydraulic circuit that includes the hydraulic servos, which operate the friction elements, and the hydraulic servos pressure detecting sensors.

Morishige (Figs. 1-14; column 6, line 47 – column 24, line 22), on the other hand, teaches a control apparatus for a stepless transmission comprising:

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- A transmission (Z);
- A torque converter (B) ;
- An engine (A);
- A forward/reverse switch mechanism (C);
- A belt transmission mechanism (D);
- A reduction mechanism (E);
- A differential mechanism (F);
- A hydraulic pressure circuit (Q);
- A control unit (78);
- A range shift position sensor; and
- Wherein the transmission is provided with first and second friction engaging elements (Fig. 1 being FWD clutch 16 and REV clutch 17) that respectively correspond to a forward range and a reverse range, and first and second hydraulic servos that respectively operate the first and second friction engaging elements (see column 9, lines 45- column 13, line 45).

It would have been obvious to one of ordinary skill in the art at the time this invention was made to modify Tsuzuki to include the hydraulic circuit as mentioned above, in view of Morishige, in order to improve the controlled ability in shifting operations.

Allowable Subject Matter

9. Claims 7-9 and 13-15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kusafuka et al. (U. S. Patent No. 6,589,133) teaches a range switchover apparatus for automatic transmission as shown in Fig. 1.
- Sakakiyama et al. (U. S. Patent No. 5,601,510) teaches a failure detecting system and a method for automatic transmission.
- Jurukawa et al. (U. S. Patent No. 5,505,674) teaches a control system with failsafe range passages in a changeover valve for a shift-by-wire automatic transmission.
- Takeyama (U. S. Patent No. 5,901,608) teaches an automatic speed-change apparatus for a gear transmission as shown in Fig.1.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 703-305-3690.

The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DDL

ddl

Charles A Marmor 7/26/04

CHARLES A. MARMOR
SUPERVISORY PATENT EXAMINER
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